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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,545	10/26/2001	Helmut Ludl	LUDL-2	3778

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EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,545

Applicant(s)

LUDL ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 5,7,8,13,15 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The formal drawings contain twenty-one sheets of figures 1-30 filed on 3/5/2002 have been received. These drawings are objected by the Examiner for the following reason.

2. The drawings are objected to for the following reasons:

First, the use of the references "100", "102", "104" and "106" in the figures 2, 4, 5, 6 and 7 is inconsistent. In particular, while in figure 2 and specification disclose that the mentioned references are connecting lines; however, the mentioned references are used to indicate some components in other figures;

Second, in the figure 2, applicant has shown that there are four figures 4 labeled as figures 4A, 4B, 4C and 4D; however, there is only one figure 4 in the application. As such, it is unclear how many figures 4 in the application. The examiner is of opinion that the references such as the reference 100 is used to show the connection between the indexer (14) and a section of a computer system being used to control the operation of the indexer; therefore, should "TO FIG. 4A (or 4B or 4C or 4D)" should be deleted;

Third, in figure 14, the use of the reference "76" for the arm is improper. The Examiner is of opinion that such reference be changed to -16—because the reference "16" being used for the arm is clearly disclosed in the specification and the specification does not refer to the reference "76".

Fourth, in figure 21, the use of the reference "142" for the actuator is improper. The Examiner is of opinion that such reference be changed to -172-- because the

reference "172" being used for the actuator is clearly disclosed in the specification and the specification does not refer to the reference "142".

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: In particular, the reference "48" shown in figure 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

5. The disclosure is objected to because the Summary of the invention does not comply with the requirements as set forth in 37 CFR 1.73. See also MPEP 608.01(d). The present summary is too long and contains numerous details of the invention. Applicant should provide a brief summary of the invention and move other descriptions/details to other section such as "Detailed Description of Preferred Embodiments" section. Appropriate correction is required.

Suggestion

6. The following corrections are suggested to claims 6 and 14.

In each of claims 6 and 14, on lines 6 and 9 of each claim, --indexer—should be added after "cassette". The reason of such a suggestion is that the base claim(s) recite a cassette indexer for supporting a plurality of slides.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4, 6, 9-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schram, deceased et al (U.S. Patent No. 4,818,169, submitted by applicant).

Schram, deceased et al disclose an automate wafer inspection system. As described in columns 4-8 and shown in figures 1-3, the inspection system comprises a wafer position system (10) and a microscope (20) which both are supported on a stable horizontal area (12). There are two side supports (14, 16) mounted along the edges of the area (12) wherein a cassette indexer (22,26) is connected to each side support. A X-Y stage for supporting a wafer exchange arm (50) wherein the X-Y stage is supported by the same area (12). The arm (50) is supported by a trolley (42) wherein the arm comprises vacuum apertures (54) at its distal finger for gripping a wafer from the indexer and for transporting

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the wafer to the microscope for observation and then returning the wafer to the same or different cassette indexer of the wafer storage system. The operation of transportation the wafer from the indexer to the microscope as well as the supply of vacuum pressure to the transportation system is controlled and operated via a computerized microprocessor (38).

It is noted that while the claim recites the slide exchange arm and the stage; however, the claim fails to provide any specific limitations relating to the structure of the claimed components. As a result of the structure and the connection among the indexer (22,26), the wafer exchange arm (50, 42), the X-Y stage (40, 56, 58, ...) as described in columns 4-6, the mentioned components/sections are integrated into one unitary modular instrument that can be moved from one microscope to another. With regard to the feature relating to the mechanical limits of the motor driven leadscrew as recited in claims 3 and 11, it is noted that the end of the threads formed on the leadscrew (28) used to move the indexer along the vertical axis acts as mechanical limits for the travel of the indexer. Regard to the means for mounting the X-Y stage to the microscope as recited in claims 5 and 12, it is noted that the X-Y stage is mounted to a block (59) which is located on the lower side of the area (12) wherein the area (12) supports the microscope (20). See column 6.

Allowable Subject Matter

9. Claims 5, 7-8, 13 and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if each of claims 5, 7, 13 and 15 is rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for allowance:

The device as claimed in each of claim 5/1 and 13/9 is patentable with respect to the cited art, in particular, the U.S. Patent Nos. 4,818,169; 4,807,984; 4,367,915; 5,386,318 and 6,405,610 by the limitations relating to the integrated spring loaded slide retention device on the X-Y stage. In particular, the cited art does not teach the use of a X-Y stage having a slide retention being actively disengaged by mechanical linkage when the X-Y stage moves along a X direction to a slide exchange position which stage, a cassette indexer and a slide exchange arm are connected/integrated into one unitary modular instrument.

The device as claimed in each of claim 7/6/1 and 15/14/9 is patentable with respect to the cited art, in particular, the U.S. Patent Nos. 4,818,169; 4,807,984; 4,367,915; 5,386,318 and 6,405,610 by the limitations relating to the slide exchange arm. In particular, the cited art does not teach the use of a slide exchange arm having means for moving the arm along an axis parallel to the X axis and a means for moving the arm along a tilted axis for the purpose of disengaged the slide wherein the slide exchange arm is used in a system having a X-Y stage, a cassette indexer holding a plurality of slides, and a slide exchange arm which are connected/integrated into one unitary modular instrument.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

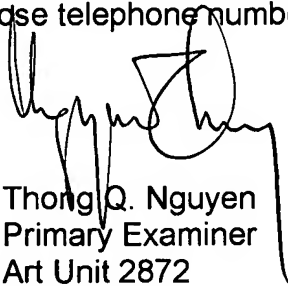
Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references are cited as of interest in that each discloses a mechanism for moving a slide from a support/indexer to a microscope.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
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June 5, 2003